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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,862	07/10/2003	Bruce Gregory Warren	895,080-016	1474

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EMULEX DESIGN & MANUFACTURING CORPORATION  
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LOS ANGELES, CA 90013

EXAMINER
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HALIYUR, VENKATESH N

ART UNIT	PAPER NUMBER
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2619

MAIL DATE	DELIVERY MODE
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02/20/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/616,862	<b>Applicant(s)</b> WARREN ET AL.	
	<b>Examiner</b> Venkatesh Haliyur	<b>Art Unit</b> 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 11/02/2007 has been considered but is ineffective to overcome Black et al. reference. Rejection follows.
2. Claims 1-13 is pending in the application.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Black et al. (US 6614796 B1).

Regarding claim 1, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices (Fig: 2 @ N1, N2) employing the Fibre

Channel Arbitrated Loop protocol (FCAL protocol, col: 3, lines: 15-20) comprising: a plurality of Fibre Channel Arbitrated Loop Ports (Fig: 4 @ 108, 110) each including port logic (col: 26, lines: 1-2 and fig: 7 @ 218, 220), a route determination apparatus (Fig: 5 @ 136), a connectivity apparatus (Fig: 4 @ 102, 104 half bridges, col: 14, line: 111-14), and logic implementing predefined loop control criteria to enforce fairness for single and multiple loop switching systems (Fig 2, col: 10, lines 3-7, col: 13, lines 16-20, Fig 17 A/B, col: 26, lines 14-20) in addition to the access fairness algorithm (all ports can access fairness token because fairness token circulates to all ports on the switch enabling a "round robin" fairness algorithm, Fig 2, col: 7, lines 35-40, col: 8, lines 33-41, col: 17, lines: 28-35).

Regarding claim 2, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein the fairness logic serves to limit the number of times a connected device opens another device (fairness token enable bit controls to activate token, col: 38, lines: 18-26; and fairness token position counter, col: 38, lines: 33-39).

Regarding claim 3, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 2, additionally the fairness logic serves to limit the number of times a connected device sequentially opens another device (Each Port's status information about availability or busy status is saved in a local copy of

scoreboard table 125 in memory, col: 14, lines: 34-35; and scoreboard controls the denial or acceptance based on scoreboard table, col: 35, lines: 21-24).

Regarding claims 4-5, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, further including a counter to count the number of opens (col: 44, lines: 34-36) and the counter counts sequential opens (col: 44, lines: 46-48).

Regarding claim 6, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein the logic proactively closes a device (when "CLS" primitive is sent, the conversation ends or closes, col: 4, lines: 10-12; and Upon receipt of "CLS" primitive for closing, source port drops the connection, col: 23, lines: 16).

Regarding claim 7, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein the ports are assigned different access priorities (col: 7, lines: 37).

Regarding claim 8, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein when a port is granted a connection due to the receipt of an OPN, it is moved to the bottom of the list and the lower priority ports are moved up toward the top of the list (when OPN received by a

port, its priority changes to "High Priority status" no matter how busy it is, col: 7, lines: 39-44).

Regarding claim 9, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein priority levels of fairness are predefined (Fairness Token circulating to all the ports, col: 7, Each port has priority assigned, lines: 35-40, and col: 17, lines: 33-35).

Regarding claim 10, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 9 wherein the predefined levels of fairness include a higher level which wins loop arbitration before the lower levels (col: 9, lines: 6-8).

Regarding claim 11, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 9 wherein the predefined priority levels are separate from the Fibre Channel Arbitrated Loop address priorities (management software can escalate priority to high which is separate from addressing priorities, col: 38, lines: 12-15).

Regarding claim 12, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 1, wherein fairness is enforced in a string cascade (connecting o/p of a device to i/p of another device) architecture (Fig: 9 @ 255,

257; in switch mode, loop switches are connected together as shown with the state machine-LPSM).

Regarding claim 13, Black et al. disclosed a system for interconnecting Fibre Channel Arbitrated Loop Devices of claim 12 wherein the fairness is enforced in part where a device wins an arbitration when an ARB has traveled between the switch and the interconnected switches on the string (Fig: 9 and col: 41, lines: 36-37).

### ***Response to Arguments***

5. Applicant's argument, see remarks filed on 11/2/2007 with respect to rejection of claims 1-13 under 35 U.S.C 102(e) communicated via office action of 11/02/2007 have been fully considered but they are not persuasive. With respect to applicant's argument that Black et al fails to disclose, teach, or suggest logic for enforcing fairness for single and multiple Loop Switch systems as recited in independent claim 1 and dependent claims 2-13, however the examiner respectfully disagrees with the applicant's and points applicant's to the reference, where Black et al disclosed a method for implementing predefined loop control criteria which enforces fairness for single and multiple loop switch system (Fig 2, col: 10, lines 3-7, col: 13, lines 16-20, Fig 17 A/B, col: 26, lines 14-20) and therefore Black et al disclosed logic for enforcing fairness for single and multiple Loop Switch systems.

***Conclusion***

**6. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

**7.** Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached @ (571)-272-7884. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.



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8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

UH 2/14/08

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SUPERVISORY PATENT EXAMINER

Edan Orgad